

GEOLOGIC STRUCTURE

LEGEND

SEDIMENTARY ROCKS

SHEET SYMBOL SECTION SYMBOL

Qal Alluvium
(in flood plains of present streams)

Qcm Carmichaels clay
(clay sand and bowlders on terraces and in abandoned channels of the larger streams)

Cd Dunkard formation
(only the lowest member, *Wagner* sandstone, occurs in this area)

Cm Monongahela formation
(shale, limestone, and occasionally coarse sandstone; *Pittsburg* coal at the bottom, *Wagner* sandstone at top, and coal beds of local importance between)

Ccm Conemaugh formation, exclusive of the *Saltsburg* sandstone
(sandstone shale, small amount of limestone and a few small coal beds)

Ccs *Saltsburg* sandstone lenticular in the Conemaugh formation
(course, thick-bedded or massive sandstone in the Conemaugh formation)

Ca Allegheny formation
(shale, sandstone, and clay with several workable coal beds; *Freepport* coal at the top)

Cpv Pottsville sandstone
(course massive sandstone or conglomerate with some shale and usually a coal bed at the middle)

Cmc Mauch Chunk formation, exclusive of the *Greenbrier* limestone
(red and green shale and thin-bedded green sandstone)

Cgr *Greenbrier* limestone lenticular in the Mauch Chunk formation
(thin blue fossiliferous limestone)

Cpo *Pocahontas* sandstone
(course sandstone grading into very sandy limestone at the top and usually containing small shaly, underlying shales of Devonian age shown on the section)

Contour lines drawn upon floor of *Pittsburg* coal at base of *Monongahela* formation
(contour interval is 20 feet. Datum is mean sea level. Where the *Pittsburg* coal has been removed by erosion the lines are determined by the calculated position of the bed)

Contour lines drawn upon upper surface of *Pottsville* sandstone approximately 950 feet below the *Pittsburg* coal horizon
(contour interval is 100 feet. Datum is mean sea level. Where the *Pottsville* sandstone has been removed by erosion the lines are determined by the calculated position of the formation)

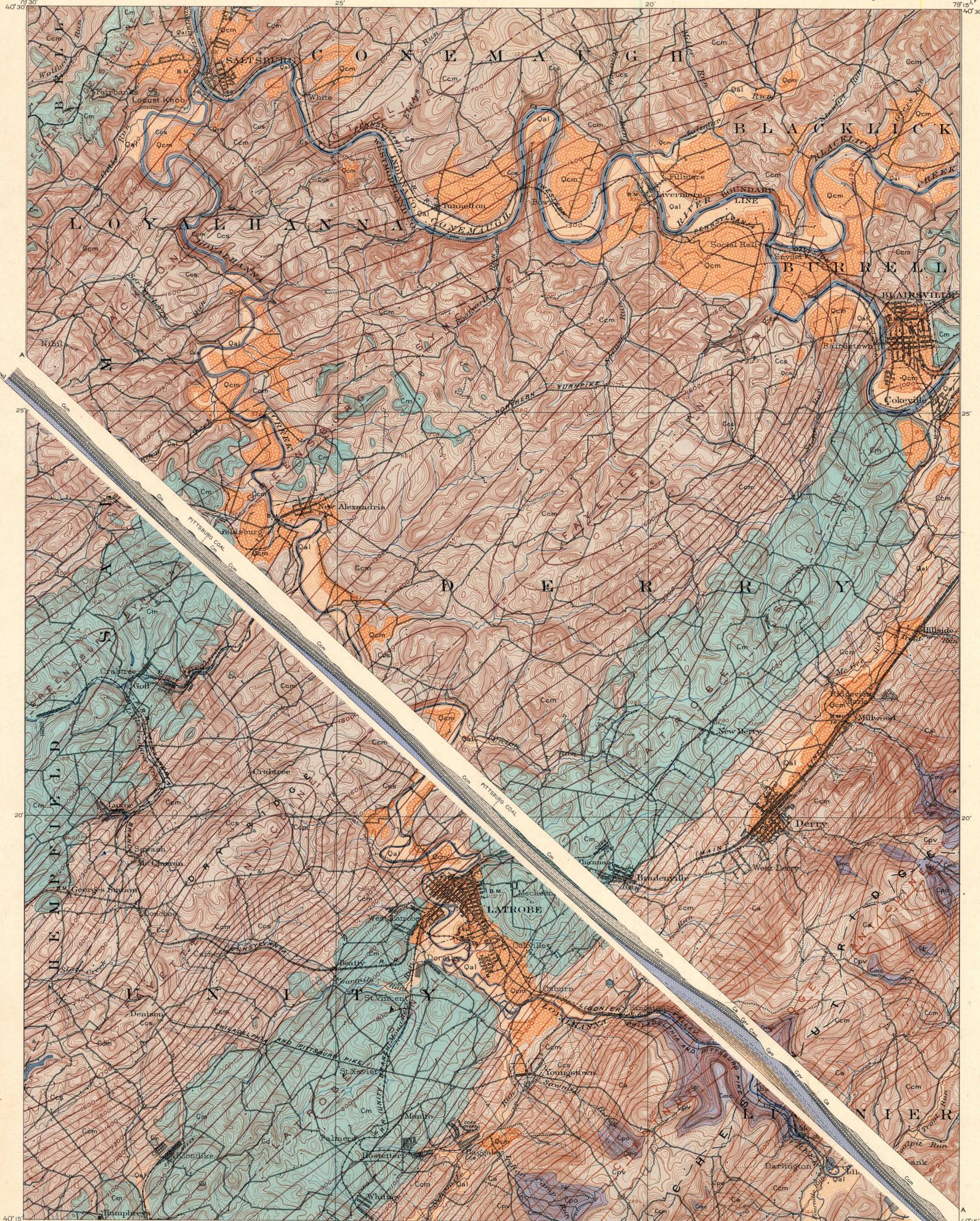
The axes of the folds are represented by heavy broken lines drawn along the lowest parts of the anticlines and the highest parts of the synclines

QUATERNARY

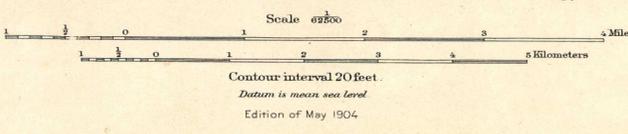
Pennsylvanian series

Mississippian series

CARBONIFEROUS



H.M. Wilson, Geographer in charge.
 Triangulation by A.H. Thompson and J.D. Forster.
 Topography by Frank Sutton and H.C. Frick Coke Co.
 Surveyed in 1900 in cooperation with the State of Pennsylvania.



Geology by Marius R. Campbell.
 Assisted by George B. Richardson
 and Lester H. Woolsey.
 Surveyed in 1901-02 in cooperation
 with the State of Pennsylvania.